

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/EP2004/050433

**A. CLASSIFICATION OF SUBJECT MATTER**  
 IPC 7 B62D1/04 B60K28/00 B60T8/00

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
 IPC 7 B62D B60K B60T B60G

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2003/023353 A1 (BADARNEH ZIAD) 30 January 2003 (2003-01-30) paragraph '0112! paragraph '0132! – paragraph '0145! paragraph '0189! – paragraph '0196! paragraph '0202! figure 15	1,8,9
Y	DE 39 41 665 A (BAYERISCHE MOTOREN WERKE AG) 20 June 1991 (1991-06-20) column 2, line 29 – line 40 figure 2	1,8,9
Y	DE 197 47 269 A (BAYERISCHE MOTOREN WERKE AG) 29 April 1999 (1999-04-29) column 1, line 45 – line 50 column 4, line 2 – line 5 figure 1	1,8,9
	-/-	

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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Date of the actual completion of the international search

17 August 2004

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 360 149 B1 (DYBALSKI RONALD HENRY ET AL) 19 March 2002 (2002-03-19) column 4, line 46 – line 50 figure 4 -----	1
A	EP 1 078 831 A (MAZDA MOTOR) 28 February 2001 (2001-02-28) paragraph '0070! – paragraph '0071! figure 2 -----	1
A	US 4 884 651 A (HARADA YASUHIRO ET AL) 5 December 1989 (1989-12-05) figure 19 -----	1

**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International Application No

PCT/EP2004/050433

Patent document cited in search report	Publication date	Patent family member(s)		Publication date
US 2003023353	A1 30-01-2003	NO NO NO AU CA CN EP JP WO NO NO	20000834 A 20003579 A 20005119 A 3622401 A 2399950 A1 1424968 T 1257433 A1 2003531046 T 0160650 A1 20004771 A 20023929 A	20-08-2001 20-08-2001 20-08-2001 27-08-2001 23-08-2001 18-06-2003 20-11-2002 21-10-2003 23-08-2001 25-03-2002 19-08-2002
DE 3941665	A 20-06-1991	DE	3941665 A1	20-06-1991
DE 19747269	A 29-04-1999	DE	19747269 A1	29-04-1999
US 6360149	B1 19-03-2002	AU AU AU AU WO WO WO WO	1843100 A 2046600 A 2168000 A 2588300 A 0034107 A1 0034104 A1 0034106 A1 0034105 A1	26-06-2000 26-06-2000 26-06-2000 26-06-2000 15-06-2000 15-06-2000 15-06-2000 15-06-2000
EP 1078831	A 28-02-2001	JP EP US	2001058564 A 1078831 A2 6409287 B1	06-03-2001 28-02-2001 25-06-2002
US 4884651	A 05-12-1989	JP JP JP JP JP DE	2095907 C 8009305 B 63031858 A 2502984 B2 63034270 A 3724574 A1	02-10-1996 31-01-1996 10-02-1988 29-05-1996 13-02-1988 04-02-1988